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			ART UNIT	PAPER NUMBER
			2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/725,438

Applicant(s)

DAS ET AL.

Examiner

Ian N. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities:

Claim 1 recites, “a receiver” in line 2-3, “a receiver” in line 6, and “a receiver” in lines 6-7. For clarity, it is suggested to change “a receiver” in line 6 and “a receiver” in lines 6-7, to “the receiver”, respectively.

Appropriate correction is required.

### First set of rejection

#### *Claim Rejections - 35 USC § 102 (b)*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,4,5,11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Reed (U.S. 4,939,731).

**Regarding Claim 1**, Reed discloses a method of transmitting data comprising the steps of:

determining a first data rate based on a measured first channel condition (see col. 2, line 40-51; see col. 4, line 23-25, 50-61; determine the rate in accordance with noise, interference, error, lost, corruption, channel quality, or collision) at a receiver to which data transmission is intended (see FIG. 1,5; recipient/receiver station; see col. 3, line 53-65; see col. 4, line 55-59);

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performing a first data transmission at the first data rate (see FIG. 1,5, transmission at a first transmission rate; see col. 2, lines 40-51):

receiving a rate indication message (see FIG. 5, ARQ message) indication either a channel condition measurements at a receiver **or** a data rate-based on a channel condition measurement at a receiver (see col. 4, line 46-65; ARQ indicates channel/transmission quality measurement/detect information and/or changes in baud rate information);

determining a second data rate (see FIG. 5, a new data rate indicated by ARQ) based on the received rate indication message (see col. 5, lines 5-10; in accordance with the channel quality factor of transmission; see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10)

performing a second data transmission of the data at the second data rate (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10) wherein the second data transmission is re-transmission of the first data transmission (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10; auto-repeat/retransmitting).

**Regarding Claim 2**, Reed discloses wherein the first and second data transmissions are identical (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10).

**Regarding Claim 4**, Reed discloses receiving, prior to the step of determining the first data rate, a rate indication message indicating the first data rate for the receiver (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10).

**Regarding Claim 5**, Reed discloses receiving, after the step of determining the first data rate and prior to the step of determining the second data rate, a rate indication message indicating the second data rate for the receiver (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10).

**Regarding Claim 11**, Reed discloses a method of receiving a data transmission comprising the steps of:

receiving at a receiver a first data transmission at a first data rate (see FIG. 1,5; recipient/receiver station; see col. 3, line 53-65; see col. 4, line 55-59), wherein the first data rate is determined using a measured first channel condition (see col. 2, line 40-51; see col. 4, line 23-25, 50-61; determine the rate in accordance with noise, interference, error, lost, corruption, channel quality, or collision);

and transmitting a rate indication message (see FIG. 5, ARQ message) if the first data transmission was not successfully received at the receiver (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10; when the packet is lost or corrupted); wherein the rate indication message indicates either a channel condition measurement at the receiver or a data rate based on a channel condition measurement at the receiver (see col. 4, line 46-65; ARQ indicates channel/transmission quality measurement/detect information and/or changes in baud rate information); and

receiving a second data transmission at a second data rate (see FIG. 5, a new data rate indicated by ARQ), wherein the second data rate is based on the rate indication message (see col. 5, lines 5-10; in accordance with the channel quality factor of transmission; see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10).

**Regarding Claim 12**, Reed discloses storing the received first data transmission if the first data transmission was not successfully received at the receiver (see col. 5, lines 39-51).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed in view of Wang (U.S. 5,838,267).

**Regarding Claims 3 and 13,** Reed teaches transmitted packet may be stored and combined with the retransmitted packet (see col. 5, lines 39-51). Reed does not explicitly disclose soft combining. However, soft combining is well known in the art. In particular, Wang discloses the softcombining (see abstract; see col. 6, lines 26-46). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide soft combining, as taught by Wang, in the system of Reed, so that it would provide error detecting and correction system (see Wang col. 2, lines 55-60), significant reduction in the residual error rate and frame erasure rate (see Wang col. 2, lines 26-30).

6. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed (U.S. 4,939,731) in view of Corke (US006414938B1).

**Regarding Claim 6,** Reed discloses that baud rate is decreased on a poor channel after transmission (see col. 5, lines 4-7). Corke discloses the first data rate is higher than a data rate indicated in a received rate indication message (see FIG. 6, step 614 and 616, sending shift rate

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down message; see col. 6, lines 55-65; since the data rate is shift down from the first data rate, the first data rate must be higher than the shift down rate in the shift down message). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the first data rate higher than shift down rate, in the combined system of Reed and Corke, so that it would improve the method of retransmitting data packets in a communication system having variable bit rates; see Corke col. 1, lines 9-10.

**Regarding Claim 7**, Reed discloses that the baud rate is increased on a good channel (see col. 5, lines 4-7). Corke discloses the second data rate is higher than a data rate indicated (see FIG. 6, step 606 and 608, sending shift rate up message; see col. 6, lines 45-55; the new data rate is higher than the shift up rate in the shift up message). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to set the second data rate higher than indicated rate due to channel quality, in the system of Reed, so that it would improve the method of retransmitting data packets in a communication system having variable bit rates; see Corke col. 1, lines 9-10.

**Regarding Claim 8**, Reed discloses receiving, prior to step of determining the first data rate, a single rate indication message indicating the data rate for a single receiver (see col. 2, lines 40-45). Corke discloses receiving plurality of messages (see FIG. 1, signaling messages; see col. 2, lines 45-50) for a plurality of receivers (see FIG. 1, Radio Base station receivers 104 and 103 or Mobile stations receivers 102; see col. 2, lines 45-50). Thus, the combined system of Reed and Corke discloses receiving, prior to step of determining the first data rate, a plurality rate indication message indicating the data rate for plurality receivers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide

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plurality of receives to receive plurality of messages, as taught by Corke, in the system of Reed, so that it would improve the method of retransmitting data packets in a communication system having variable bit rates; see Corke col. 1, lines 9-10.

**Regarding Claim 9**, Reed discloses selection a receiver to which to transmit data using the received rate indication message (see col. 2, lines 40-45). Corke discloses selecting a receiver from a plurality of receivers (see FIG. 1, Radio Base station receivers 104 and 103 or Mobile stations receivers 102; see col. 2, lines 45-50) and sending/receiving plurality of messages see FIG. 1; signaling messages; see col. 2, lines 45-50). Thus, the combined system of Reed and Corke discloses selecting a receiver from a plurality of receivers to which to transmit data using the received plurality of rate indication messages. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a mechanism of selecting a receiver from plurality of receives to transmit data, as taught by Corke, in the combined system of Reed and Corke, so that it would improve the method of retransmitting data packets in a communication system having variable bit rates; see Corke col. 1, lines 9-10.

**Regarding Claim 10**, Reed discloses selecting a receiver, which associated with a rate indication message indicating a highest data rate (see col. 2, lines 40-45). Corke discloses the selected a receiver is a receiver associated with a higher data rate (see col. 4, lines 44-50). Thus, the combined system of Reed and Corke discloses the selected receiver associated with a rate indication message indication a highest data rate. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide associating a selected receiver with a high data rate, as taught by Corke, in the combined system of Reed and Corke, so that it would improve the method of retransmitting data packets in a communication



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system having variable bit rates; see Corke col. 1, lines 9-10, and it would enable the system to select the rout that has the highest throughput.

**Second set of rejection**

***Claim Rejections - 35 USC § 102 (e)***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,2,5,6,11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Scheibel (US006212240B1).

**Regarding Claim 1**, Scheibel discloses a method of transmitting data (see FIG. 3, a method executed on a communication device) comprising the steps of:

determining a first data rate (see FIG. 3, step 302; a first modulation rate; see col. 3, line 1-10) based on a measured first channel condition (see col. 3, line 11-17; line 45 to col. 23; in accordance with bandwidth, CRC, sequencing number, and/or quantity of data blocks) at a receiver to which data transmission is intended (see FIG. 1, Receiver 112 of the communication device 107 or 101; see col. 2, line 37-65; see col. 5, line 41-45),

performing a first data transmission at the first data rate (see FIG. 3 step 302, transmit to a target device at a first modulation rate; see col. 5, line 32-46):

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receiving a rate indication message (see FIG. 3, step 304, receive Acknowledgment message that indicates to retransmit at second rate) indication either a channel condition measurements at a receiver or a data rate-based on a channel condition measurement at a receiver (see FIG. 3, step 304; indicating a first quantity of blocks that were not received and/or indicate to retransmit at second modulation rate; see col. 5, line 45-53; see col. 3, line 45 to col. 4, line 49);

determining a second data rate (see FIG. 3, step 310, 312; a second modulation rate) based on the received rate indication message (see col. 5, line 47 to col. 6, line 17; determining in accordance with acknowledgement message); and

performing a second data transmission of the data at the second data rate, wherein the second data transmission is a re-transmission of the first data transmission (see FIG. 3, step 312, transmit at a second modulation rate a first group of data block that were not received (i.e. retransmitting); see col. 5, line 65 to col. 6, line 17).

**Regarding Claim 2**, Scheibel discloses wherein the first and second data transmissions are identical (see FIG. 3, step 312, transmit at a second modulation rate a first group of data block that were not received (i.e. retransmitting); see col. 5, line 65 to col. 6, line 17).

**Regarding Claim 5**, Scheibel discloses receiving, after the step of determining the first data rate and prior to the step of determining the second data rate, a rate indication message indicating the second data rate for the receiver (see FIG. 3, step 304; indicating a first quantity of blocks that were not received and indicate to retransmit at second modulation rate; see col. 5, line 45-53; see col. 3, line 45 to col. 4, line 49).

**Regarding Claim 6**, Scheibel discloses the first data rate is a higher data rate than a data rate indicated in a received indication message (see col. 5, line 50-65; see col. 6, line 45-49; first modulation rate is greater than the second modulation rate).

**Regarding Claim 11**, Scheibel discloses a method of receiving a data transmission (see FIG. 3, a method executed on a communication device) comprising the steps of:

receiving at a receiver (see FIG. 1, Receiver 112 of the communication device 107 or 101; see col. 2, line 37-65; see col. 5, line 41-45) a first data transmission at a first data rate (see FIG. 3, step 302; a first modulation rate; see col. 3, line 1-10), wherein the first data rate is determined using a measured first channel condition (see col. 3, line 11-17; line 45 to col. 23; in accordance with bandwidth, CRC, sequencing number, and/or quantity of data blocks); and

transmitting a rate indication message (see FIG. 3, step 304, receive Acknowledgment message that indicates to retransmit at a second modulation rate) if the first data transmission was not successfully received at the receiver (see FIG. 3, step 304; indicating a first quantity of blocks that were not received; see col. 5, line 45-53; see col. 3, line 45 to col. 4, line 49),

wherein the rate indication message indicates either a channel condition measurement at the receiver or a data rate based on a channel condition measurement at the receiver (see FIG. 3, step 304; indicating a first quantity of blocks that were not received and indicate to retransmit at second modulation rate; see col. 5, line 45-53; see col. 3, line 45 to col. 4, line 49); and

receiving a second data transmission at a second data rate (see FIG. 3, step 310, 312; a second modulation rate), wherein the second data rate is based on the rate indication message (see FIG. 3, step 312, transmit at a second modulation rate a first group of data block that were not received (i.e. retransmitting); see col. 5, line 65 to col. 6, line 17).

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**Regarding Claim 12**, Scheibel discloses storing the received first data transmission if the first data transmission was not successfully received at the receiver (see FIG. 1, memory device 116; see col. 2, line 40-60).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Reed (U.S. 4,939,731).

**Regarding Claim 4**, Scheibel does not explicitly disclose receiving, prior to the step of determining the first data rate, a rate indication message indicating the first data rate for the receiver. However, Reed teaches receiving, prior to the step of determining the first data rate, a rate indication message indicating the first data rate for the receiver (see col. 2, lines 40-51; see col. 4, lines 47 to col. 5, lines 10; receiving ARQ message to change the data rate). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide ARQ method to change the data rate, as taught by Reed in the system of Scheibel, so that it would provide telecommunication system which is reliable and can adapt to changing transmission conditions; see Reed col. 1, line 42-46.

10. Claim 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Wang (U.S. 5,838,267).

**Regarding Claims 3 and 13**, Scheibel teaches transmitted packet may be stored and combined with the retransmitted packet (see FIG. 1, memory device 116; see col. 2, line 40-60). Scheibel does not explicitly disclose soft combining. However, soft combining is well known in the art. In particular, Wang discloses the softcombining (see abstract; see col. 6, lines 26-46). Therefore, it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to provide soft combining, as taught by Wang, in the system of Scheibel, so that it would provide error detecting and correction system (see Wang col. 2, lines 55-60), significant reduction in the residual error rate and frame erasure rate (see Wang col. 2, lines 26-30), and enable efficient reconstruction of the data packets.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Corke (US006414938B1).

**Regarding Claim 7**, Scheibel discloses all limitation as disclose above in claim 1.

Scheibel does not explicitly disclose the second data rate is a higher data rate than a data rate indicated in a received rate indication message. However, Corke discloses the second data rate is higher than a data rate indicated (see FIG. 6, step 606 and 608, sending shift rate up message; see col. 6, lines 45-55; the new data rate is higher than the shift up rate in the shift up message). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a second/retransmitted data rate higher than the date rate indicated, in the system of Scheibel, so that it would so that it would improve the method of retransmitting data packets in a communication system having variable bit rates; see Corke col. 1, lines 9-10, 55-63.

12. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Kameda (U.S. 5,940,772).

**Regarding Claim 8**, Scheibel discloses receiving a single rate indication message indicating the data rate for a single receiver (see FIG. 1, Receiver 112; see col. 2, lines 20-45).

Scheibel does not explicitly disclose receiving, prior to step of determining the first data rate, a plurality of rate indication messages indicating the data rates for a plurality of receivers.

Kameda discloses receiving discloses receiving, prior to step of determining the first data rate, plurality of messages (see FIG. 1, wire transmission signals/messages, rate messages and error control messages; see col. 2, lines 55-62) for a plurality of receivers (see FIG. 1, Radio Base station receivers 4 or Mobile station receivers 5; see col. 2, lines 40-65; see col. 3, lines 1-6, 15-20). Thus, the combined system of Reed and Kameda discloses receiving, prior to step of determining the first data rate, a plurality of rate indication message indicating the data rate for plurality of receivers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide plurality of receives to receive plurality of messages, as taught by Kameda, in the system of Scheibel, so that it would achieve maximum transmission; see Kameda col. 1, lines 35-39.

**Regarding Claim 9**, Scheibel discloses selection a receiver to which to transmit data using the received rate indication message (see FIG. 1, Receiver 112; see col. 2, lines 20-45). Kameda discloses selecting a receiver from a plurality of receivers (see FIG. 1, Radio Base station receivers 4 or Mobile station receivers 5; see col. 2, lines 40-65; see col. 3, lines 1-6, 15-20) and sending/receiving plurality of messages (see FIG. 1, wire transmission signals/messages, rate messages and error control messages; see col. 2, lines 55-62). Thus, the combined system of Scheibel and Kameda discloses selecting a receiver from a plurality of receivers to which to transmit data using the received plurality of rate indication messages. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a mechanism of selecting a receiver from plurality of receives to transmit data, as taught by

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Kameda, in the combined system of Reed and Kameda, so that it would achieve maximum transmission; see Kameda col. 1, lines 35-39.

**Regarding Claim 10**, Scheibel discloses selecting a receiver, which associated with a rate indication message indicating a data rate (see FIG. 1, Receiver 112; see col. 2, lines 20-45). Kameda discloses the selected a receiver is a receiver associated with a highest data rate (see FIG. 2, 9800 BPS; see col. 3, lines 29-32). Thus, the combined system of Scheibel and Kameda discloses the selected receiver associated with a rate indication message indication a highest data rate. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide associating a selected receiver with a highest data rate, as taught by Kameda, in the combined system of Scheibel and Kameda, so that it would achieve maximum transmission; see Kameda col. 1, lines 35-39.

#### ***Response to Arguments***

13. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Response to Arguments***

14. Applicant's arguments filed 11/30/2005 have been fully considered but they are not persuasive.

**Regarding claims 1-17, the applicant argued that, "...Reed discloses...the requests transmitted by the receiver does not include an actual data rate indication...in Reed, the request for change in data rate does not contain any data rate information..."** in page 6, paragraph 2.

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**In response to applicant's argument, the examiner respectfully disagrees with**  
argument above. Reed discloses in col. 4, line 60-65 as follows:

“The use of error correction and detection enables a quantitative assessment of the channel to be made. This information is used by the recipient to request data rate changes and, possible, a channel change. **Changes in baud rate are initiated only by the destination station, and signalled in an ARQ packet, FIG. 6.** (Emphasis added)

Thus, one can clearly see that Reed's ARQ message for change in data rate contains data rate information.

**The applicant argued that,** “...In contrast, in the present invention, the rate message can be either a channel condition measurement at receiver or a data rate-based on a channel condition measurement at a receiver...” in page 6, paragraph 2.

**In response to applicant's argument, the examiner respectfully disagrees with the**  
argument above. Reed discloses receiving a rate indication message (see FIG. 5, ARQ message) indication either a channel condition measurements at a receiver or a data rate-based on a channel condition measurement at a receiver (see col. 4, line 46-65; ARQ indicates channel/transmission quality measurement/detect information and/or changes in baud rate information).

In view of the above, **the examiner respectfully disagrees** with applicant's argument and believes that the Reed as set forth in the rejections are proper.

### ***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER  
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